CLAIMS

1. A communication system for facilitating remote communications, comprising a first device having:

a first global positioning system (GPS) receiver for receiving a carrier signal;

a signal encoder system for encoding data using a first clock signal at a predetermined clock frequency, wherein the clock signal is derived directly from the carrier signal; and

a data transmitter for transmitting the encoded data.

2. The communication system of claim 1, further comprising a second device having:

a second GPS receiver for receiving the carrier signal;

a data receiver for receiving the encoded data from the transmitter; and

a signal decoder system for decoding the encoded data using a second clock signal at the predetermined clock frequency, wherein the second clock signal is derived directly from the carrier signal received from the second GPS receiver.

3. The communication system of claim 1, wherein the carrier signal is an L1 signal.

4. The communication system of claim 1, wherein the carrier signal is an L2 signal.

5. The communication system of claim 1, wherein the signal encoder system derives the first clock signal by modulating the carrier signal.

6. The communication system of claim 1, wherein the signal encoder system includes a first security system for changing the predetermined clock frequency to a predetermined sequence of frequencies.

7. The communication system of claim 6, wherein the signal decoder system includes a second security system for changing the predetermined clock frequency to the predetermined sequence of frequencies.

8. The communication system of claim 2, wherein the first and second device communicate in a synchronous manner.

9. The communication system of claim 2, wherein the first and second device communicate in an asynchronous manner.

10. A communication device for receiving data encoded at a predetermined frequency, comprising:

a global positioning system (GPS) receiver for receiving a carrier signal; and

a signal processing system for decoding the data using a clock signal at the predetermined frequency, wherein the clock signal is derived directly from the carrier signal;

wherein the encoded data includes non-GPS data.

11. The communication device of claim 10, wherein the carrier signal is selected from the group consisting of an L1 signal and an L2 signal.

12. The communication device of claim 10, wherein the encoded data comprises wireless data.

13. The communication device of claim 10, further comprising a transmitter that includes a system for encoding data using an encoder clock signal derived from the carrier signal.

14. A method for synchronizing signals in a communication system, comprising the steps of:

receiving a global positioning system (GPS) carrier signal;

generating a clock signal derived from the carrier signal; and

synchronizing a non-GPS data stream with the clock signal.

15. The method of claim 14, wherein the clock signal is generated at a predetermined frequency.

16. The method of claim 14, comprising the further step of transmitting the non-GPS data stream at the frequency of the clock signal.

17. The method of claim 14, wherein the non-GPS data stream was received from a remote transmitter also operating at the frequency of the clock signal.

18. The method of claim 14, comprising the further step of periodically changing the frequency of the clock signal.

19. A method of synchronizing a pair of communication devices, comprising the steps of:

receiving a global positioning system (GPS) carrier signal at a first device;

at the first device, deriving from the carrier signal a transmitter clock signal having a predetermined frequency;

transmitting data at the predetermined frequency from the first device;

receiving the data at a second device;

receiving the GPS carrier signal at the second device; and

at the second device, deriving from the carrier signal a receiver clock signal having the predetermined frequency.

20. The method of claim 19, comprising the further step of:

synchronizing the received data using the receiver clock signal.

21. The method of claim 19, wherein the transmitter clock signal and the receiver clock signal are derived from the carrier signal using a common formula.

22. The method of claim 19, comprising the further step of systematically altering the frequency of the transmitter clock signal and the receiver clock signal using a predefined scheme.

23. The method of claim 19, wherein the data is transmitted via a wireless communication channel.

24. A communication device for processing data, comprising:

a global positioning system (GPS) receiver for receiving a carrier signal;

a signal processing system for converting the carrier signal to a clock signal at a predetermined frequency; and

a universal asynchronous receiver/transmitter (UART), wherein the UART utilizes the clock signal obtained from the signal processing system to process data.